

ROBERT MUELLER and
FRANZ-JOSEF VOGELSANG
Serial No.: 10/527,467

R E M A R K S

Reconsideration is respectfully requested of the amended claims in conjunction with the discussion of the prior art.

At the outset Applicants appreciate the diligent search, consideration of the prior art and indication of the allowability of claim 7-8 and 12-13 in the first Office Action.

Applicants have reviewed the Houston U.S. Patent 5,529,758 and do not believe Houston '758 teaches or suggests the application of a labyrinth seal to a valve. Moreover Houston '758 does not teach or disclose a labyrinth seal having the seal axially or radially displaced from the end of a connecting opening as now claimed in independent claims 1, 9 and 14.

A labyrinth seal is generally a mechanical seal that fits around a shaft to prevent leakage of fluids. (See attached excerpt from Wikipedia). The Examiner is correct in noting the Applicants' labyrinth seal may also include a flushing fluid or gas such as nitrogen as claimed in dependent claims 3, 5 and 6. However Applicants' labyrinth seal is patentably distinct from the pressure seals of Houston '758 and the cited prior art.

Applicants' seal is a labyrinth seal which is structurally

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and patentably different from the prior art. More particularly the sealing groove of the Applicants' labyrinth seals are axially or radially or axially and radially displaced from the end of the connecting opening. These structural differences are now included in the amended independent claims.

The Houston '758 prior art as noted by the Examiner have the grooves or gaps at each of the axial ends of the flow channel which are in axial alignment with the flow channel. These are gap seals and not labyrinth seals. The Applicants' labyrinth seal is displaced from the gap seal or the ends of the flow channels. Applicants' labyrinth seal is both axially and radially displaced from the end of the connecting opening as indicated in Fig. 5 of the Applicants' Specification.

Applicants have also reviewed the other prior art made of record and not relied upon and believe their amended claims are patentably different.

All of the claims are now believed in a condition for allowance, which action is respectfully requested.

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Respectfully submitted,

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